```
MMM         MMM    AAAAAAAAA        CCCCCCCCCCCC  RRRRRRRRRRRR       000000000
MMM         MMM    AAAAAAAAA        CCCCCCCCCCCC  RRRRRRRRRRRR       000000000
MMM         MMM    AAAAAAAAA        CCCCCCCCCCCC  RRRRRRRRRRRR       000000000
MMMMMM   MMMMMM    AAA      AAA     CCC           RRR        RRR     000     000
MMMMMM   MMMMMM    AAA      AAA     CCC           RRR        RRR     000     000
MMM  MMM MMM       AAA      AAA     CCC           RRR        RRR     000     000
MMM  MMM MMM       AAA      AAA     CCC           RRR        RRR     000     000
MMM  MMM MMM       AAA      AAA     CCC           RRR        RRR     000     000
MMM      MMM       AAA      AAA     CCC           RRRRRRRRRRRR       000     000
MMM      MMM       AAA      AAA     CCC           RRRRRRRRRRRR       000     000
MMM      MMM       AAAAAAAAAAAAAA   CCC           RRR   RRR          000     000
MMM      MMM       AAAAAAAAAAAAAA   CCC           RRR    RRR         000     000
MMM      MMM       AAAAAAAAAAAAAA   CCC           RRR     RRR        000     000
MMM      MMM       AAA      AAA     CCC           RRR      RRR       000     000
MMM      MMM       AAA      AAA     CCC           RRR       RRR      000     000
MMM      MMM       AAA      AAA     CCC           RRR       RRR      000     000
MMM      MMM       AAA      AAA     CCCCCCCCCCCC  RRR        RRR     000000000
MMM      MMM       AAA      AAA     CCCCCCCCCCCC  RRR        RRR     000000000
MMM      MMM       AAA      AAA     CCCCCCCCCCCC  RRR        RRR     000000000
```

```
LL         RRRRRRR    PPPPPPPP   TTTTTTTTTT    AAAAAA   BBBBBBBB
LL         RRRRRRRR   PPPPPPPP   TTTTTTTTTT    AAAAAA   BBBBBBBB
LL         RR    RR   PP    PP       TT      AA    AA   BB    BB
LL         RR    RR   PP    PP       TT      AA    AA   BB    BB
LL         RR    RR   PP    PP       TT      AA    AA   BB    BB
LL         RR    RR   PP    PP       TT      AA    AA   BB    BB
LL         RRRRRRRR   PPPPPPPP       TT      AA    AA   BBBBBBBB
LL         RRRRRRR    PPPPPPPP       TT      AA    AA   BBBBBBBB
LL         RR  RR     PP             TT    AAAAAAAAAA   BB    BB
LL         RR  RR     PP             TT    AAAAAAAAAA   BB    BB
LL         RR    RR   PP             TT      AA    AA   BB    BB   ....
LL         RR    RR   PP             TT      AA    AA   BB    BB   ....
LLLLLLLLL  RR    RR   PP             TT      AA    AA   BBBBBBBB   ....
LLLLLLLLL  RR    RR   PP             TT      AA    AA   BBBBBBBB   ....


LL         IIIIII     SSSSSSSS
LL         IIIIII     SSSSSSSS
LL           II     SS
LL           II     SS
LL           II     SS
LL           II     SS
LL           II       SSSSSS
LL           II       SSSSSS
LL           II             SS
LL           II             SS
LL           II             SS
LL           II             SS
LLLLLLLLL   IIIIII    SSSSSSSS
LLLLLLLLL   IIIIII    SSSSSSSS
```

MAC
Sym

REG
REP
REP
RFH
RFH
RFH
RFH
RFH
RGL
SBT
SET
SGN
SGN
STA
STA
STO
TI
VEC
VEC
VEC
WAR
WEA
WOR
XFE

PSE
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MAC

Pha
---
Ini
Com
Pas
Sym
Pas
Sym
Pse
Cro
Ass

The
177
The
358
0 p

MAC$LRPTAB
V04-000

M 4
VAX-11 Macro-32 Assembler Grammar Tables 16-SEP-1984 01:53:54  VAX/VMS Macro V04-00      Page  1
                                         5-SEP-1984 01:48:48  [MACRO.SRC]LRPTAB.MAR;1          (1)

```
0000     1          .title  mac$lrptab      VAX-11 Macro-32 Assembler Grammar Tables
0000     2          .ident  'V04-000'
0000     3
0000     4  ;*******************************************************************************
0000     5  ;*                                                                             *
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0000    22  ;*    SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
0000    23  ;*                                                                             *
0000    24  ;*                                                                             *
0000    25  ;*******************************************************************************
0000    26
0000    27  ;++
0000    28
0000    29  ; Facility:
0000    30  ;
0000    31  ;       VAX-11 Macro Assembler
0000    32  ;
0000    33  ; Abstract:
0000    34  ;
0000    35  ;       This module contains the grammar parsing tables for the VAX-11 Macro
0000    36  ;       assembler.
0000    37  ;
0000    38  ; Environment:
0000    39  ;
0000    40  ;       Native Mode, User Mode
0000    41  ;
0000    42  ;
0000    43  ; Creation Date: April, 1983    Michael T. Rhodes
0000    44  ;
0000    45  ;--
```

N 4

MAC$LRPTAB
V04-000
VAX-11 Macro-32 Assembler Grammar Tables 16-SEP-1984 01:53:54  VAX/VMS Macro V04-00   Page 2
State Table Current token is compared to  5-SEP-1984 01:48:48  [MACRO.SRC]LRPTAB.MAR;1       (2)

```
                                          0000   47        .sbttl  State Table    Current token is compared to each state below.
                                          0000   48
                                   00000000      49        .psect  mac$parse_table, noexe, gbl, nowrt, long
                                          0000   50        .align  long
                                          0000   51
                          00000000        0000   52   null=0
                          00000000        0000   53   mtxt1=null
                          00000000        0000   54   mtxt2=null
                                          0000   55
                                          0000   56   pat$ab_symlst::
BF 8E 8D 8C 0D 8B 8A 89 01 0B 88 87       0000   57        .byte  135,-
57 56 98 97 4C 4B 4A 49 48 50 92 0C       000C   58       136,   11,    1, 137, 138, 139,  13, 140, 141, 142, 143,  12,-
63 52 51 60 54 99 58 67 68 66 62 61       000C   59       146,   80,   72,  73,  74,  75,  76, 151, 152,  86,  87,  97,-
4E 4F 53 76 77 9A 59 6A 69 6B 65 64       0018   60        98,  102,  104, 103,  88, 153,  84,  96,  81,  82,  99, 100,-
94 85 5B 5C 7A 79 A0 7B 9F 9E 9D 9C       0024   61       101,  107,  105, 106,  89, 154, 119, 118,  83,  79,  78, 156,-
82 81 39 3B 36 A5 A4 A2 12 0E 96 95       0030   62       157,  158,  159, 123, 160, 121, 122,  92,  91, 133, 148, 149,-
72 71 74 4D 6C 5D 5E 55 5A A1 A8 A6       003C   63       150,   14,   18, 162, 164, 165,  54,  59,  57, 129, 130, 166,-
7C 3C 38 47 46 75 84 70 6F 6E 6D 73       0048   64       168,  161,   90,  85,  94,  93, 108,  77, 116, 113, 114, 115,-
44 43 42 41 40 3F 83 3D AC AA 3E 7D       0054   65       109,  110,  111, 112, 132, 117,  70,  71,  56,  60, 124, 125,-
88 0A FD 37 33 78 35 34 80 7F 7E 45       0060   66        62,  170,  172,  61, 131,  63,  64,  65,  66,  67,  68,  69,-
91 04 90 0B FD 03 0B FC 88 0B FC 0B       006C   67       126,  127,  128,  52,  53, 120,  51,  55,  -3,  10, 136,  11,-
21 2C B9 1A 20 B8 17 02 B7 31 2F B6       0078   68        -4,   11,  136,  -4,  11,   3,  -3,  11, 144,   4, 145, 182,-
B1 22 12 0C B0 A7 AE 30 2E 2B 93 2D       0084   69        47,   49,  183,   2,  23, 184,  32,  26, 185,  44,  33,  45,-
29 B3 28 23 27 24 26 2A 19 25 15 B2       0090   70       147,   43,   46,  48, 174, 167, 176,  12,  18,  34, 177, 178,-
FD 31 FD 13 FC 03 91 FD 03 0F 0B FD       009C   71        21,   37,   25,  42,  38,  36,  39,  35,  40, 179,  41,  -3,-
B1 22 12 0C B0 A7 AE 93 FD 21 FD 14       00A8   72        11,   15,   -3,  -3, 145,   3,  -4,  19,  -3,  49,  -3,  20,-
1D 1C 1B 1A 19 AF FC 1A 19 25 15 B2       00B4   73        -3,   33,   -3, 147, 174, 167, 176,  12,  18,  34, 177, 178,-
B1 22 12 0C 05 A7 FC AE FD 20 1F 1E       00C0   74        -3,   37,   25,  26,  -4, 175,  25,  26,  27,  28,  29,  30,-
FC 15 B2 B1 22 12 0C 05 A7 FC 15 B2       00CC   75        31,   32,   -3, 174,  -4, 167,   5,  12,  18,  34, 177, 178,-
1F 1E 1D 1C 1B 1A 19 AF 05 16 FC 93       00D8   76        21,   -4,  167,   5,  12,  18,  34, 177, 178,  21,  -4, 147,-
16 FC B5 16 B4 FD 32 31 B5 15 FD 20       00E4   77        -4,   22,    5, 175,  25,  26,  27,  28,  29,  30,  31,  32,-
FD 19 FD 01 18 FD 01 31 FC B5 FD 0F       00F0   78        -3,   21,  181,  49,  50,  -3, 180,  22, 181,  -4,  22,  15,-
31 FC 30 2E 2B 93 2D 21 31 B9 17 B8       00FC   79        -3,  181,   -4,  49,   1,  -3,  24,   1,  -3,  25,  -?, 184,-
1C 1B 1A 19 AF FC 93 FD 19 FD 18 FD       0108   80        23,  185,   49,  33,  45, 147,  43,  46,  48,  -4,  49,  -3,-
1A 19 AF FC 93 FD 21 FD 20 1F 1E 1D       0114   81        24,   -3,   25,  -3, 147,  -4, 175,  25,  26,  27,  28,  29,-
1B 1A 19 AF 17 FD 20 1F 1E 1D 1C 1B       0120   82        30,   31,   32,  -3,  33,  -3, 147,  -4, 175,  25,  26,  27,-
FC 93 FD 18 FD 31 FD 20 1F 1E 1D 1C       012C   83        28,   29,   30,  31,  32,  -3,  23, 175,  25,  26,  27,  28,-
31 FD 20 1F 1E 1D 1C 1B 1A 19 AF 17       0138   84        29,   30,   31,  32,  -3,  49,  -3,  24,  -3, 147,  -4,  23,-
1D 1C 1B 1A 19 AF 17 FC 93 FD 18 FD       0144   85       175,   25,   26,  27,  28,  29,  30,  31,  32,  -3,  49,  30,-
AF 17 FC 93 FD 18 FD 31 FD 20 1F 1E       0150   86        24,   -3,  147,  -4,  23, 175,  25,  26,  27,  28,  29,  30,-
18 FD 31 FD 20 1F 1E 1D 1C 1B 1A 19       015C   87        31,   32,   -3,  49,  -3,  24,  -3, 147,  -4,  23, 175,  25,-
1A 19 AF FC 93 FD 18 FD 31 FD 17 FD       0168   88        26,   27,   28,  29,  30,  31,  32,  -3,  49,  -3,  24,  -3,-
FD 10 FD 11 10 FD 20 1F 1E 1D 1C 1B       0174   89        23,   -3,   49,  -3,  24,  -3, 147,  -4, 175,  25,  26,  27,-
0F FD 02 0F 0C FC 0B FC 02 93 FD 11       0180   90        28,   29,   30,  31,  32,  -3,  16,  17,  -3,  16,  -3,  17,-
1E 1D 1C 1B 1A 19 AF FC 93 FC 02 93       018C   91        -3,  147,    2,  -4,  11,  -4,  12,  15,   2,  -3,  15, 147,-
20 1F 1E 1D 1C 1B 1A 19 AF FD 20 1F       0198   92         2,   -4,  147,  -4, 175,  25,  26,  27,  28,  29,  30,  31,-
20 1F 1E 1D 1C 1B 1A 19 AF FC 93 FD       01A4   93        32,   -3,  175,  25,  26,  27,  28,  29,  30,  31,  32,  -3,-
15 B2 B1 22 12 0C B0 A7 AE 93 0F FD       01B0   94       147,   -4,  175,  25,  26,  27,  28,  29,  30,  31,  32,  -3,-
FD 29 B3 28 23 27 24 26 2A 1A 19 25       01BC   95        15,  147,  174, 167, 176,  12,  18,  34, 177, 178,  21,  37,-
FD 20 1F 1E 1D 1C 1B 1A 19 AF FC 93       01C8   96        25,   26,   42,  38,  36,  39,  35,  40, 179,  41,  -3, 147,-
FD 0C FD 20 1F 1E 1D 1C 1B 1A 19 AF       01D4   97        -4,  175,   25,  26,  27,  28,  29,  30,  31,  32,  -3, 175,-
B2 B1 22 12 0C B0 A7 AE 93 0F FD 0C       01E0   98        25,   26,   27,  28,  29,  30,  31,  32,  -3,  12,  -3,  12,-
29 B3 28 23 27 24 26 2A 1A 19 25 15       01EC   99        -3,   15,  147, 174, 167, 176,  12,  18,  34, 177, 178,  21,-
20 1F 1E 1D 1C 1B 1A 19 AF FC 93 FD       01F8  100        37,   25,   26,  42,  38,  36,  39,  35,  40, 179,  41,  -3,-
9B FD 20 1F 1E 1D 1C 1B 1A 19 AF FD       0204  101       147,   -4,  175,  25,  26,  27,  28,  29,  30,  31,  32,  -3,-
AF FC 02 93 FD 0C FD 0C FD 0F FD 0C       0210  102       175,   25,   26,  27,  28,  29,  30,  31,  -3, 155,  12,-
                                          021C  103        -3,   15,   -3,  12,  -3,  12,  -3, 147,   2,  -4, 175,  25,-
```

```
2F B6 91 FD 20 1F 1E 1D 1C 1B 1A 19 0228 104    26,  27,  28,  29,  30,  31,  32,  -3, 145, 182,  47,  49,-
93 2D 21 2C B9 1A 20 B8 17 02 B7 31 0234 105   183,   2,  23, 184,  32,  26, 185,  44,  33,  45, 147,  43,-
15 B2 B1 22 12 0C B0 A7 AE 30 2E 2B 0240 106    46,  48, 174, 167, 176,  12,  18,  34, 177, 178,  21,  37,-
93 FD 29 B3 28 23 27 24 26 2A 19 25 024C 107    25,  42,  38,  36,  39,  35,  40, 179,  41,  -3, 147, 174,-
1A 19 25 15 B2 B1 22 12 0C B0 A7 AE 0258 108   167, 176,  12,  18,  34, 177, 178,  21,  37,  25,  26,  42,-
1A 19 AF FD 29 B3 28 23 27 24 26 2A 0264 109    38,  36,  39,  35,  40, 179,  41,  -3, 175,  25,  26,  27,-
FD 02 0C FC 93 FD 20 1F 1E 1D 1C 1B 0270 110    28,  29,  30,  31,  32,  -3, 145,  -4,  12,   2,  -3, 147,-
1A 19 AF FC 93 0B FC 02 0F FC 02 93 027C 111     2,  -4,  15,   2,  -4,  11, 147,  -4, 175,  25,  26,  27,-
0F 93 FD 02 0B FD 20 1F 1E 1D 1C 1B 0288 112    28,  29,  30,  31,  32,  -3,  11,   2,  -3, 147,  15,   2,-
B0 A7 AE 93 A9 A3 FD 11 FC 0F FC 02 0294 113    -4,  15,  -4,  17,  -3, 163, 169, 147, 174, 167, 176,  12,-
24 26 2A 1A 19 25 15 B2 B1 22 12 0C 02A0 114    18,  34, 177, 178,  21,  37,  25,  26,  42,  38,  36,  39,-
FC 04 93 FD 04 0F FD 29 B3 28 23 27 02AC 115    35,  40, 179,  41,  -3,  15,   4,  -3, 147,   4,  -4, 175,-
FD 13 FD 20 1F 1E 1D 1C 1B 1A 19 AF 02B8 116    25,  26,  27,  28,  29,  30,  31,  32,  -3,  19,  -3, 147,-
1E 1D 1C 1B 1A 19 AF FC 06 14 FC 93 02C4 117    -4,  20,   6,  -4, 175,  25,  26,  27,  28,  29,  30,  31,-
26 2A 15 B2 B1 22 12 0C A7 FD 20 1F 02D0 118    32,  -3, 167,  12,  18,  34, 177, 178,  21,  42,  38,  36,-
B1 22 12 0C A7 FD 29 B3 28 23 27 24 02DC 119    39,  35,  40, 179,  41,  -3, 167,  12,  18,  34, 177, 178,-
93 FD 29 B3 28 23 27 24 26 2A 15 B2 02E8 120    21,  42,  38,  36,  39,  35,  40, 179,  41,  -3, 147,   2,-
19 25 15 B2 B1 22 12 0C B0 A7 AE 02 02F4 121   174, 167, 176,  12,  18,  34, 177, 178,  21,  37,  25,  26,-
19 AF FD 29 B3 28 23 27 24 26 2A 1A 0300 122    42,  38,  36,  39,  35,  40, 179,  41,  -3, 175,  25,  26,-
FD 0F FD 0C FD 20 1F 1E 1D 1C 1B 1A 030C 123    27,  28,  29,  30,  31,  32,  -3,  12,  -3,  15,  -3, 171,-
FC 06 16 FC 16 93 FD 06 15 FD 15 AB 0318 124    21,  -3,  21,   6,  -3, 147,  22,  -4,  22,   6,  -4, 147,-
0C B0 A7 AE 93 AD FC 06 16 FC 16 93 0324 125    22,  -4,  22,   6,  -4, 173, 147, 174, 167, 176,  12,  18,-
27 24 26 2A 1A 19 25 15 B2 B1 22 12 0330 126    34, 177, 178,  21,  37,  25,  26,  42,  38,  36,  39,  35,-
AF FC 04 93 FD 04 0F FD 29 B3 28 23 033C 127    40, 179,  41,  -3,  15,   4,  -3, 147,   4,  -4, 175,  25,-
1A 19 AF FD 20 1F 1E 1D 1C 1B 1A 19 0348 128    26,  27,  28,  29,  30,  31,  32,  -3, 175,  25,  26,  27,-
      00 FD 20 1F 1E 1D 1C 1B 0354 129    28,  29,  30,  31,  32,  -3,   0
                           035C 130
```

C 5

```
                                                    035C   132          .sbttl  Action Table    Next action the parser should perform.
                                                    035C   133
                                                    035C   134          .align  long
                                                    035C   135
                                                    035C   136   pat$aw_action::
                                                    035C   137          .word   118,-
```

| Line | Obj code (hex) | v1 | v2 | v3 | v4 | v5 | v6 | v7 | v8 | v9 | v10 | v11 | v12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 138 | FFF6 007A FFF9 FFFA FFFC FFFE 0076 035C / 0080 FFF1 FFF2 007D FFF5 036A | -2, | -4, | -6, | -7, | 122, | -10, | -11, | 125, | -14, | -15, | 128, | 391 |
| 139 | FFD4 FFD5 FFD6 FFD7 FFD8 018E 0187 0374 / FFCF FFD0 FFD1 FFD2 FFD3 0382 | 398, | -40, | -41, | -42, | -43, | -44, | -45, | -46, | -47, | -48, | -49, | -50 |
| 140 | 01BD 0193 FFCA FFCB FFCC FFCD FFCE 038C / FFBD FFBE FFBF FFC0 FFC1 039A | -51, | -52, | -53, | -54, | 403, | 445, | -63, | -64, | -65, | -66, | -67, | 490 |
| 141 | 021B 01EC FFB8 FFB9 FFBA FFBB 01EA 03A4 / FFAF FFB0 FFB1 FFB2 0222 03B2 | -69, | -70, | -71, | -72, | 492, | 539, | 546, | -78, | -79, | -80, | -81, | 548 |
| 142 | FFA2 0279 FFA7 0277 0257 0231 0224 03BC / 0282 FF9E FF9F FFA0 FFA1 03CA | 561, | 599, | 631, | -89, | 633, | -94, | -95, | -96, | -97, | -98, | 642, | 655 |
| 143 | FF7A FF7B 029A 0298 FFED 0292 028F 03D4 / FF75 FF76 FF77 FF78 FF79 03E2 | 658, | -19, | 664, | 666, | -133, | -134, | -135, | -136, | -137, | -138, | -139, | 723 |
| 144 | FF9B FF9C FF9D FF92 02F3 02E3 02D3 03EC / FF8F FF90 0314 FF91 FF9A 03FA | 739, | 755, | -110, | -99, | -100, | -101, | -102, | -111, | 788, | -112, | -113, | -114 |
| 145 | FF7E FF93 FF94 FF95 FF96 FF97 FF8E 0404 / FF6C FF6D FF6E FFD9 FFDD 0412 | -105, | -106, | -107, | -108, | -109, | -130, | -35, | -39, | -146, | -147, | -148, | -149 |
| 146 | FF88 FF6F FF70 032A 0318 FF6A FF6B 041C / FF83 FF84 FF85 FF86 FF87 042A | -150, | 792, | 810, | -144, | -145, | -120, | -121, | -122, | -123, | -124, | -125, | -126 |
| 147 | FF5E FF5F FF60 FF7F FF80 FF81 FF82 0434 / FFFD FFFF 270F FF53 FF5D 0442 | -127, | -128, | -129, | -160, | -161, | -162, | -163, | -173, | 9999, | -1, | -3, | -5 |
| 148 | FFF3 FFF4 0004 FFF7 FFF8 0004 FFFB 044C / FFEC FFEE 00A9 FFF0 270F 045A | 4, | -8, | -9, | 4, | -12, | -13, | 9999, | -16, | 169, | -18, | -20, | 176 |
| 149 | FF22 0100 FF24 FF25 FF26 00B6 00B0 0464 / 0119 017B FF1E 0175 0108 0472 | 182, | -218, | -219, | -220, | 256, | -222, | 264, | 373, | -226, | 379, | 281, | 293 |
| 150 | FF41 FF4E 0164 0153 0142 0133 0125 047C / 00DB FF3C FF3E 00D2 048A | 307, | 322, | 339, | 356, | -178, | -191, | 210, | -194, | -195, | -196, | 219, | -198 |
| 151 | FF34 FF35 FF36 FF4B FF4C 00E4 FF3A 0494 / 00F2 FF30 FF31 FF32 FF33 04A2 | 228, | -180, | -181, | -202, | -203, | -204, | -205, | -206, | -207, | -208, | 242, | 9999 |
| 152 | FFEA FFEB 270F FFE9 00AD FFEF 270F 04AC / 270F 00B4 D81A 00B2 0084 04BA | -17, | 173, | -23, | 9999, | -21, | -22, | 132, | 178, | -10214, | 180, | 9999, | -243 |
| 153 | FF41 FF4E 00C6 270F 00B8 270F FF0D 04C4 / 00DB FF3C FF3D FF3E 00D2 04D2 | 9999, | 184, | 9999, | 198, | -178, | -191, | 210, | -194, | -195, | -196, | 219, | -198 |
| 154 | 00D0 00A0 FF4A FF4B FF4C 00E4 FF3A 04DC / FF45 FF46 FF47 FF48 FF49 04EA | 228, | -180, | -181, | -182, | 160, | 208, | -183, | -184, | -185, | -186, | -187, | -188 |
| 155 | FF40 00BA FF4D D819 FF42 FF43 FF44 04F4 / 00DB FF3C FF3D FF3E FF3A 0502 | -189, | -190, | -10215, | -179, | 186, | -192, | -193, | -194, | -195, | -196, | 219, | -198 |
| 156 | FF3D FF3E FF38 FF3B 00A0 00E4 FF3A 050C / 00A0 00E4 FF3A 00DB FF3C 051A | 228, | 160, | -197, | -200, | -194, | -195, | -196, | 219, | -198, | 228, | 160, | 230 |
| 157 | FF48 FF49 00D0 FF37 FF39 00B9 00E6 0524 / FF43 FF44 FF45 FF46 FF47 0532 | 185, | -199, | -201, | 208, | -183, | -184, | -185, | -186, | -187, | -188, | -189, | -190 |
| 158 | 270F FF29 FF2A FF2D 00F7 270F FF42 053C / FF2F 00F4 FF2C FF2E 00FB 054A | 9999, | 247, | -211, | -214, | -215, | 9999, | 251, | -210, | -212, | 244, | -209, | 254 |
| 159 | 270F FF1B 0103 00F4 FF2B 270F 00FE 0554 / D815 FF18 270F FF1A 0106 0562 | 9999, | -213, | 244, | 259, | -229, | 9999, | 262, | -230, | 9999, | -232, | -10219, | -223 |
| 160 | 0133 0125 0119 FF19 FF1D 0113 FF21 056C / 0115 00B9 0164 0153 0142 057A | 275, | -227, | -231, | 281, | 293, | 307, | 322, | 339, | 356, | 185, | 277, | 9999 |
| 161 | 00B9 011B D812 FF18 270F 0117 270F 0584 / FF46 FF47 FF48 FF49 00D0 0592 | 279, | 9999, | -232, | -10222, | 283, | 185, | 208, | -183, | -184, | -185, | -186, | -187 |
| 162 | 270F 0127 D809 FF42 FF43 FF44 FF45 059C / FF48 FF49 00D0 00B9 0129 05AA | -188, | -189, | -190, | -10231, | 295, | 9999, | 297, | 185, | 208, | -183, | -184, | -185 |
| 163 | D808 FF42 FF43 FF44 FF45 FF46 FF47 05B4 | -186, | -187, | -188, | -189, | -190, | -10232, | 318, | 208, | -183, | -184, | -185, | -186 |

MAC$LRPTAB
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D 5
VAX-11 Macro-32 Assembler Grammar Tables 16-SEP-1984 01:53:54  VAX/VMS Macro V04-00      Page 5
Action Table Next action the parser shou  5-SEP-1984 01:48:48  [MACRO.SRC]LRPTAB.MAR;1      (3)

```
                FF47 FF48 FF49 00D0 013E 05C2
0140 D806 FF42 FF43 FF44 FF45 FF46 05CC
          00B9 0144 270F FF15 270F 05DA
FF45 FF46 FF47 FF48 FF49 00D0 014F 05E4
          0151 D802 FF42 FF43 FF44 05F2
00D0 0160 00B9 0155 270F FF13 270F 05FC
          FF45 FF46 FF47 FF48 FF49 060A
FF12 270F 0162 D801 FF42 FF43 FF44 0614
          00D0 0171 00B9 0166 270F 0622
FF43 FF44 FF45 FF46 FF47 FF48 FF49 062C
          FF11 270F 0173 D800 FF42 063A
270F FF1F 270F 0179 D83C 0177 270F 0644
          FF48 FF49 00D0 00B9 017D 0652
D80E FF42 FF43 FF44 FF45 FF46 FF47 065C
          D8DA FFE7 270F 018C 018A 066A
00E8 FFE6 00B9 FFE5 0191 D8D6 FFE3 0674
          019B 270F FFC6 01B1 0197 0682
FF49 00D0 00B9 019D 00B9 FFC5 01A7 068C
          FF44 FF45 FF46 FF47 FF48 069A
FF47 FF48 FF49 00D0 D8BB FF42 FF43 06A4
          FF42 FF43 FF44 FF45 FF46 06B2
FF47 FF48 FF49 00D0 00B9 01B3 D8BA 06BC
          FF42 FF43 FF44 FF45 FF46 06CA
FF3E 00D2 FF41 FF4E 01E0 01D4 D8B9 06D4
          00E4 FF3A 00DB FF3C FF3D 06E2
FF33 FF34 FF35 FF36 FF4A FF4B FF4C 06EC
          D8B6 00F2 FF30 FF31 FF32 06FA
FF46 FF47 FF48 FF49 00D0 00B9 01D6 0704
          D8B5 FF42 FF43 FF44 FF45 0712
FF44 FF45 FF46 FF47 FF48 FF49 00D0 071C
          270F FFBC D8B4 FF42 FF43 072A
00D2 FF41 FF4E 0211 0205 270F 01EE 0734
          FF3A 00DB FF3C FF3D FF3E 0742
FF34 FF35 FF36 FF4A FF4B FF4C 00E4 074C
          00F2 FF30 FF31 FF32 FF33 075A
FF47 FF48 FF49 00D0 00B9 0207 D8A9 0764
          FF42 FF43 FF44 FF45 FF46 0772
FF45 FF46 FF47 FF48 FF49 00D0 D8A8 077C
          021E D8A7 FF42 FF43 FF44 078A
FFB3 270F FF98 D8A6 0220 270F FF99 0794
          00D0 00B9 FFAD 0227 270F 07A2
FF45 FF46 FF47 FF48 FF49 00D0 07AC
          00B6 00B0 FFAB D8A0 FF42 07BA
0175 0108 FF22 0100 FF24 FF25 FF26 07C4
          0133 0125 0119 017B FF1E 07D2
FF3E 00D2 FF41 FF4E 0164 0153 0142 07DC
          00E4 FF3A 00DB FF3C FF3D 07EA
FF32 FF33 FF34 FF35 FF36 FF4A FF4C 07F4
          026D D89E 00F2 FF30 FF31 0802
00DB FF3C FF3D FF3E 00D2 FF41 FF4E 080C
          FF4A FF4B FF4C 00E4 FF3A 081A
FF30 FF31 FF32 FF33 FF34 FF35 FF36 0824
          FF48 FF49 00D0 D89C 00F2 0832
D89B FF42 FF43 FF44 FF45 FF46 FF47 083C
          270F FFA5 027C 0084 FFA8 084A
FFE1 00E8 FFA3 FFA6 00B9 FFA4 027F 0854
          FF48 FF49 00D0 00B9 0285 0862
```

| # | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 164 | -187, | -188, | -189, | -190, | -10234, | 320, | 9999, | -235, | 9999, | 324, | 185, | 335 |
| 165 | 208, | -183, | -184, | -185, | -186, | -187, | -188, | -189, | -190, | -10238, | 337, | 9999 |
| 166 | -237, | 9999, | 341, | 185, | 352, | 208, | -183, | -184, | -185, | -186, | -187, | -188 |
| 167 | -189, | -190, | -10239, | 354, | 9999, | -238, | 9999, | 358, | 185, | 369, | 208, | -183 |
| 168 | -184, | -185, | -186, | -187, | -188, | -189, | -190, | -10240, | 371, | 9999, | -239, | 9999 |
| 169 | 375, | -10180, | 377, | 9999, | -225, | 9999, | 381, | 185, | 208, | -183, | -184, | -185 |
| 170 | -186, | -187, | -188, | -189, | -190, | -10226, | 394, | 396, | 9999, | -25, | -10022, | -29 |
| 171 | -10026, | 401, | -27, | 185, | -26, | 232, | 407, | 433, | -58, | 9999, | 411, | 423 |
| 172 | -59, | 185, | 413, | 185, | 208, | -183, | -184, | -185, | -186, | -187, | -188, | -189 |
| 173 | -190, | -10053, | 208, | -183, | -184, | -185, | -186, | -187, | -188, | -189, | -190, | -10054 |
| 174 | 435, | 185, | 208, | -183, | -184, | -185, | -186, | -187, | -188, | -189, | -190, | -10055 |
| 175 | 468, | 480, | -178, | -191, | 210, | -194, | -195, | -196, | 219, | -198, | 228, | -180 |
| 176 | -181, | -182, | -202, | -203, | -204, | -205, | -206, | -207, | -208, | 242, | -10058, | 470 |
| 177 | 185, | 208, | -183, | -184, | -185, | -186, | -187, | -188, | -189, | -190, | -10059, | 208 |
| 178 | -183, | -184, | -185, | -186, | -187, | -188, | -189, | -190, | -10060, | -68, | 9999, | 494 |
| 179 | 9999, | 517, | 529, | -178, | -191, | 210, | -194, | -195, | -196, | 219, | -198, | 228 |
| 180 | -180, | -181, | -182, | -202, | -203, | -204, | -205, | -206, | -207, | -208, | 242, | -10071 |
| 181 | 519, | 185, | 208, | -183, | -184, | -185, | -186, | -187, | -188, | -189, | -190, | -10072 |
| 182 | 208, | -183, | -184, | -185, | -186, | -187, | -188, | -189, | -190, | -10073, | 542, | -103 |
| 183 | 9999, | 544, | -10074, | -104, | 9999, | -77, | 9999, | 551, | -83, | 185, | 208, | -183 |
| 184 | -184, | -185, | -186, | -187, | -188, | -189, | -190, | -10080, | -85, | 176, | 182, | -218 |
| 185 | -219, | -220, | 256, | -222, | 264, | 373, | -226, | 379, | 281, | 293, | 307, | 322 |
| 186 | 339, | 356, | -178, | -191, | 210, | -194, | -195, | -196, | 219, | -198, | 228, | -180 |
| 187 | -181, | -202, | -203, | -204, | -205, | -206, | -207, | -208, | 242, | -10082, | 621, | -178 |
| 188 | -191, | 210, | -194, | -195, | -196, | 219, | -198, | 228, | -180, | -181, | -182, | -202 |
| 189 | -203, | -204, | -205, | -206, | -207, | -208, | 242, | -10084, | 208, | -183, | -184, | -185 |
| 190 | -186, | -187, | -188, | -189, | -190, | -10085, | -88, | 132, | 636, | -91, | 9999, | 639 |
| 191 | -92, | 185, | -90, | -93, | 232, | -31, | 645, | 185, | 208, | -183, | -184, | -185 |

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E 5
VAX-11 Macro-32 Assembler Grammar Tables 16-SEP-1984 01:53:54   VAX/VMS Macro V04-00      Page  6
Action Table Next action the parser shou  5-SEP-1984 01:48:48   [MACRO.SRC]LRPTAB.MAR;1          (3)

```
D8D0 FF42 FF43 FF44 FF45 FF46 FF47   086C   192   -186,  -187,  -188,  -189,  -190,-10032,   -32,   -33,  9999,   662,   -37,   -38
     FFDB 0296 270F FFDF FFE0         087A
02B2 270F FFE2 00E8 FFDC 00B9 FFDA   0884   193    185,   -36,   232,   -30,  9999,   690,   706,   713,  -178,  -191,   210,  -194
     00D2 FF41 FF4E 02C9 02C2         0892
FF4C 00E4 FF3A 00DB FF3C FF3D FF3E   089C   194   -195,  -196,   219,  -198,   228,  -180,  -181,  -182,  -202,  -203,  -204,  -205
     FF34 FF35 FF36 FF4A FF4B         08AA
02B5 D86E 00F2 FF30 FF31 FF32 FF33   08B4   195   -206,  -207,  -208,   242,-10130,   693,  -156,-10129,   696,  -157,   185,   208
     00B9 FF63 02B8 D86F FF64         08C2
FF44 FF45 FF46 FF47 FF48 FF49 00D0   08CC   196   -183,  -184,  -185,  -186,  -187,  -188,  -189,  -190,-10153,   708,-10149,   710
     D85B 02C4 D857 FF42 FF43         08DA
FF49 00D0 00E8 FF67 FF68 00B9 02C6   08E4   197    185,  -152,  -153,   232,   208,  -183,  -184,  -185,  -186,  -187,  -188,  -189
     FF44 FF45 FF46 FF47 FF48         08F2
FF3C FF3D FF3E FF74 D858 FF42 FF43   08FC   198   -190,-10152,  -140,  -194,  -195,  -196,   219,  -198,   228,  -202,  -203,  -204
     FF35 FF36 00E4 FF3A 00DB         090A
D865 00F2 FF30 FF31 FF32 FF33 FF34   0914   199   -205,  -206,  -207,  -208,   242,-10139,  -142,  -194,  -195,  -196,   219,  -198
     00DB FF3C FF3D FF3E FF72         0922
FF32 FF33 FF34 FF35 FF36 00E4 FF3A   092C   200    228,  -202,  -203,  -204,  -205,  -206,  -207,  -208,   242,-10141,   778,  -119
     030A D863 00F2 FF30 FF31         093A
FF3C FF3D FF3E 00D2 FF41 FF4E FF89   0944   201   -178,  -191,   210,  -194,  -195,  -196,   219,  -198,   228,  -180,  -181,  -182
     FF4B FF4C 00E4 FF3A 00DB         0952
FF31 FF32 FF33 FF34 FF35 FF36 FF4A   095C   202   -202,  -203,  -204,  -205,  -206,  -207,  -208,   242,-10115,   208,  -183,  -184
     FF49 00D0 D87D 00F2 FF30         096A
FF42 FF43 FF44 FF45 FF46 FF47 FF48   0974   203   -185,  -186,  -187,  -188,  -189,  -190,-10116,   790,  9999,  -115,-10114,   795
     D87E FF8D 270F 0316 D87C         0982
0321 D853 FF56 031E D854 0324 031B   098C   204    804,-10156,   798,  -170,-10157,   801,  -167,   185,  -165,  -169,   232,   807
     00E8 FF57 FF5B 00B9 FF59         099A
0341 00E8 FF58 FF5C 00B9 FF5A 0327   09A4   205   -166,   185,  -164,  -168,   232,   833,   849,  -178,  -191,   210,  -194,  -195
     FF3E 00D2 FF41 FF4E 0351         09B2
FF4B FF4C 00E4 FF3A 00DB FF3C FF3D   09BC   206   -196,   219,  -198,   228,  -180,  -181,  -182,  -202,  -203,  -204,  -205,  -206
     FF33 FF34 FF35 FF36 FF4A         09CA
FF50 0344 D846 00F2 FF30 FF31 FF32   09D4   207   -207,  -208,   242,-10170,   836,  -176,-10169,   839,  -177,   185,   208,  -183
     00D0 00B9 FF4F 0347 D847         09E2
FF43 FF44 FF45 FF46 FF47 FF48 FF49   09EC   208   -184,  -185,  -186,  -187,  -188,  -189,  -190,-10173,   208,  -183,  -184,  -185
     FF48 FF49 00D0 D843 FF42         09FA
D844 FF42 FF43 FF44 FF45 FF46 FF47   0A04   209   -186,  -187,  -188,  -189,  -190,-10172,     0
                              0000   0A12
                                     0A14   210
```

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MAC$LRPTAB                   VAX-11 Macro-32 Assembler Grammar Tables 16-SEP-1984 01:53:54   VAX/VMS Macro V04-00          Page  7
V04-000                      Pop Table Number of arguments to pop fro  5-SEP-1984 01:48:48   [MACRO.SRC]LRPTAB.MAR;1             (4)

```
                              0A14   212              .sbttl  Pop Table        Number of arguments to pop from parser stack.
                              0A14   213
                              0A14   214              .align  long
                              0A14   215
                              0A14   216   pat$ab_pop::
                              0A14   217              .byte   0,-
00 00 01 01 00 00 01 00 01 00 01 00   0A14   218      1,      0,      1,      0,      1,      0,      0,      1,      1,      0,      0,      1,-
01 02 02 00 00 01 02 01 00 00 01 01   0A20   219      1,      0,      0,      1,      2,      1,      0,      1,      1,      1,      0,      1,-
00 01 01 01 01 01 02 01 01 02 02 01   0A2C   220      2,      2,      1,      1,      2,      1,      1,      1,      1,      1,      0,      2,-
00 00 00 00 00 00 00 00 00 01 01 02   0A38   221      1,      0,      0,      0,      0,      0,      3,      0,      0,      0,      0,      0,-
02 01 02 02 03 00 00 00 00 00 00 00   0A44   222      0,      0,      0,      0,      0,      0,      3,      0,      2,      1,      2,      0,-
00 00 00 01 00 00 00 00 00 01 02 00   0A50   223      2,      1,      0,      0,      0,      0,      0,      1,      0,      1,      2,      0,-
01 01 00 00 00 00 01 01 02 03 01 00   0A5C   224      1,      3,      2,      1,      1,      0,      0,      0,      0,      1,      1,      0,-
00 00 03 02 01 03 00 01 01 00 01 00   0A68   225      1,      0,      1,      1,      0,      3,      1,      2,      3,      0,      0,      0,-
00 00 02 00 00 00 00 00 00 00 00 00   0A74   226      0,      0,      0,      0,      0,      0,      2,      0,      0,      0,      0,      0,-
01 01 00 01 02 00 00 00 00 00 00 00   0A80   227      0,      0,      0,      0,      0,      0,      2,      0,      1,      1,      1,      0,-
01 00 00 00 00 00 00 00 00 00 00 00   0A8C   228      0,      0,      0,      0,      0,      0,      0,      0,      1,      1,      1,      0,-
00 01 00 01 00 00 00 00 00 00 00 00   0A98   229      0,      0,      0,      0,      0,      0,      0,      1,      0,      1,      1,      0,-
02 00 03 03 00 00 00 00 00 00 00 00   0AA4   230      0,      0,      0,      0,      0,      0,      0,      3,      3,      0,      2,      1,-
02 01 03 02 00 00 00 00 01 00 02 01   0AB0   231      2,      0,      1,      0,      0,      0,      0,      2,      3,      1,      2,      2,-
02 00 02 01 02 00 00 00 01 01 03 02   0ABC   232      3,      1,      1,      0,      0,      0,      2,      1,      2,      2,      2,      0,-
00 00 00 00 00 00 00 00 00 00 01 01   0AC8   233      0,      0,      0,      0,      0,      0,      0,      0,      0,      0,      0,      1,-
00 00 02 01 02 00 01 00 00 00 01 01   0AD4   234      1,      0,      0,      0,      1,      0,      2,      1,      2,      0,      0,      1,-
00 00 02 00 01 02 03 00 00 00 00 00   0AE0   235      0,      0,      0,      0,      3,      2,      1,      0,      2,      0,      0,      0,-
01 00 03 03 01 00 02 00 00 00 02 00   0AEC   236      2,      0,      0,      0,      2,      0,      1,      3,      3,      0,      1,      1,-
04 04 04 00 03 02 01 03 01 02 01 01   0AF8   237      1,      2,      1,      3,      1,      2,      3,      0,      4,      4,      4,      1,-
00 03 01 01 01                        0B04   238      1,      1,      3,      0
                              0B09   239
```

G  5

MAC$LRPTAB                    VAX-11 Macro-32 Assembler Grammar Tables 16-SEP-1984 01:53:54  VAX/VMS Macro V04-00   Page  8
V04-000                       LHS Table Left Hand Side of the statemen  5-SEP-1984 01:48:48  [MACRO.SRC]LRPTAB.MAR;1        (5)

```
                                  0B09  241          .sbttl  LHS Table      Left Hand Side of the statement.
                                  0B09  242
                                  0B09  243          .align  long
                                  0B0C  244
                                  0B0C  245  pat$ab_lhs::
                                  0B0C  246          .byte   0,-
88 88 88 88 88 87 87 87 87 87 B6 00  0B0C  247   134, 135, 135, 135, 135, 135, 136, 136, 136, 136, 136, 136,-
90 90 90 90 8F 89 89 89 88 88 88 88  0B18  248   136, 136, 136, 137, 137, 137, 143, 144, 144, 144, 144, 138,-
94 95 8D 8D 8D 92 92 92 8B 8B 8A 8A  0B24  249   138, 139, 139, 146, 146, 146, 141, 141, 141, 149, 148, 142,-
8C 8C 8C 8C 8C 8C 8C 8C 96 8E 8E 8E  0B30  250   142, 142, 150, 140, 140, 140, 140, 140, 140, 140, 140, 140,-
8C 8C 8C 8C 8C 8C 8C 8C 8C 8C 8C 8C  0B3C  251   140, 140, 140, 140, 140, 140, 140, 140, 140, 140, 140, 140,-
8C 8C 8C 8C 8C 8C 8C 8C 8C 8C 8C 8C  0B48  252   140, 140, 140, 140, 140, 140, 140, 140, 140, 140, 140, 140,-
8C 8C 8C 8C 8C 8C 8C 8C 8C 8C 8C 8C  0B54  253   140, 140, 140, 140, 140, 140, 140, 140, 140, 140, 140, 140,-
9F 9F 9F 9B 9B 9A 9A 9A 9A 9A 8C 8C  0B60  254   140, 140, 154, 154, 154, 154, 155, 155, 159, 159, 159, 159,-
98 98 98 9D 9D 9E 9E 9E 9C 99 9F 9F  0B6C  255   159, 153, 156, 158, 158, 158, 157, 157, 152, 152, 152, 161,-
97 A0 A1 A1 A1 A1 A1 A1 A1 A1 A1 A1  0B78  256   161, 161, 161, 161, 161, 161, 161, 161, 161, 160, 151, 151,-
97 97 97 97 97 97 97 97 97 97 97 97  0B84  257   151, 151, 151, 151, 151, 151, 151, 151, 151, 151, 151, 166,-
A9 A9 A3 A3 A3 A2 A2 A2 A2 A2 A8 A6  0B90  258   168, 162, 162, 162, 162, 162, 163, 163, 163, 169, 169, 169,-
AB AB AB AB AA AA AA AA A4 A4 A9 A9  0B9C  259   169, 164, 164, 170, 170, 170, 170, 171, 171, 171, 171, 171,-
93 93 AD AD AD AD AC A5 A5 AB AB AB  0BA8  260   171, 171, 165, 165, 172, 173, 173, 173, 173, 147, 147, 176,-
AE AF AF AF AF AF AF AF AF B0 B0 B0  0BB4  261   176, 176, 175, 175, 175, 175, 175, 175, 175, 175, 174, 174,-
B1 B1 A7 A7 A7 A7 A7 A7 A7 A7 AE AE  0BC0  262   174, 167, 167, 167, 167, 167, 167, 167, 167, 177, 177, 177,-
B5 B5 B4 B4 B3 B3 B3 B2 B2 B2 B1 B1  0BCC  263   177, 178, 178, 178, 179, 179, 179, 180, 180, 181, 181, 145,-
B6 B6 B6 B6 B6 B6 91 91 91 91 91     0BD8  264   145, 145, 145, 145, 182, 182, 182, 182, 182, 182, 182, 182,-
B9 B9 B9 B9 B9 B8 B8 B8 B6 B6 B6 B6  0BE4  265   182, 182, 182, 184, 184, 184, 185, 185, 185, 185, 185, 185,-
00 B7 B9 B9 B9                       0BF0  266   185, 185, 185,   0
                                  0BFC  267
                                  0C01  268
```

```
                                    0C01  270                 .sbttl  Semantic Action          Dispatch table to semantic action routines.
                                    0C01  271
                                    0C01  272                 .align  long
                                    0C04  273
                                    0C04  274         patSal_sem::
   00000000 00000000'00000000       0C04  275                 .long   0-
   00000000'00000000'00000000       0C10  276                 .GOAL                        .MTXT1                       .MTXT2
   00000000'00000000'00000000       0C10  277                 .MTXT3                       .MTXT4                       .ERRMRS
   00000000'00000000'00000000       0C1C  278                 .STAT1                       .0                           .0
   00000000'00000000'00000000       0C28  279                 .0                           .STAT4                       .0
   00000000'00000000'00000000       0C34  280                 .ERRDOL                      .0                           .0
   00000000'00000000'00000000       0C40  281                 .0                           .OPRAND                      .OPRAND
   00000000'00000000'00000000       0C4C  282                 .MINST1                      .ERRREF                      .LBL1
   00000000'00000000'00000000       0C58  283                 .ERRREF                      .ASSGN1                      .ERRASN
   00000000'00000000'00000000       0C64  284                 .LBL2                        .ASSHD2                      .ASSHD3
   00000000'00000000'00000000       0C70  285                 .ASSHD1                      .IF                          .IFSYNT
   00000000'00000000'00000000       0C7C  286                 .IFSPL                       .IFHD1                       .IIF1
   00000000'00000000'00000000       0C88  287                 .0                           .ERRIIF                      .IIF
   00000000'00000000'00000000       0C94  288                 .IIF2                        .IFF                         .IFT
   00000000'00000000'00000000       0CA0  289                 .MACRO                       .IRP                         .IRPC
   00000000'00000000'00000000       0CAC  290                 .IFTF                        .0                           .DSABL
   00000000'00000000'00000000       0CB8  291                 .0                           .LIST                        .NLIST
   00000000'00000000'00000000       0CC4  292                 .ENABL                       .CSAVE                       .CRESTO
   00000000'00000000'00000000       0CD0  293                 .PSECT                       .ENTRY2                      .ERRENT
   00000000'00000000'00000000       0CDC  294                 .ENTRY1                      .ERRENT                      .ALIGN1
   00000000'00000000'00000000       0CE8  295                 .ERRENT                      .ALIGN2                      .DELETE
   00000000'00000000'00000000       0CF4  296                 .ALIGN2                      .MCALL                       .MEXIT
   00000000'00000000'00000000       0D00  297                 .LIBRY                       .NCHR                        .PAGE
   00000000'00000000'00000000       0D0C  298                 .NARG                        .TITLE                       .IDENT
   00000000'00000000'00000000       0D18  299                 .SBTTL                       .VECTR1                      .VECTR2
   00000000'00000000'00000000       0D24  300                 .VECTRO                      .XFER                        .ENDPRG
   00000000'00000000'00000000       0D30  301                 .0                           .BDEND2                      .ENDC
   00000000'00000000'00000000       0D3C  302                 .BDEND1                      .ERREPT                      .NTYPE1
   00000000'00000000'00000000       0D48  303                 .REPT                        .ERROD1                      .ERROR2
   00000000'00000000'00000000       0D54  304                 .NTYPE2                      .SETDFL                      .DFNOPC
   00000000'00000000'00000000       0D60  305                 .DFREF                       .ERROPD                      .ERROPD
   00000000'00000000'00000000       0D6C  306                 .ERROPD                      .CRODSB                      .ODD
   00000000'00000000'00000000       0D78  307                 .CROENB                      .LINK                        .DEBUG
   00000000'00000000'00000000       0D84  308                 .EVEN                        .EXTRN                       .WEAK
   00000000'00000000'00000000       0D90  309                 .GLOBAL                      .IDLIST                      .RFHD1
   00000000'00000000'00000000       0D9C  310                 .IDLIST                      .RFHD4                       .RFHD8
   00000000'00000000'00000000       0DA8  311                 .RFHD2                       .ALIGN                       .REPTHD
   00000000'00000000'00000000       0DB4  312                 .RFHD16                      .PRINT                       .WARN
   00000000'00000000'00000000       0DC0  313                 .ERROR                       .NTHD2                       .BSTAT1
   00000000'00000000'00000000       0DCC  314                 .NTHD1                       .ERRBLK                      .BLKLNG
   00000000'00000000'00000000       0DD8  315                 .BSTAT2                      .BLKQUD                      .BLKLNG
   00000000'00000000'00000000       0DE4  316                 .BLKBYT                      .BLKQUD                      .BLKWRD
   00000000'00000000'00000000       0DF0  317                 .BLKLNG                      .BLKOCT                      .BLKOCT
   00000000'00000000'00000000       0DFC  318                 .BLKQUD                      .0                           .DATNUL
   00000000'00000000'00000000       0E08  319                 .REPTHD                      .0                           .PACKED
   00000000'00000000'00000000       0E14  320                 .0                           .DOUBLE                      .GFLOAT
   00000000'00000000'00000000       0E20  321                 .FLOAT                       .QUDSTR                      .DATNUL
   00000000'00000000'00000000       0E2C  322                 .HFLOAT                      .DATNUL                      .QUAD
   00000000'00000000'00000000       0E38  323                 .OCTSTR                      .BYTE                        .LONG
   00000000'00000000'00000000       0E44  324                 .OCTA                        .SGNWRD                      .WORD
   00000000'00000000'00000000       0E50  325                 .SGNBYT                      .DALST2                      .ERRDAR
   00000000'00000000'00000000       0E5C  326                 .DALST1
```

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MACSLRPTAB                VAX-11 Macro-32 Assembler Grammar Tables 16-SEP-1984 01:53:54  VAX/VMS Macro V04-00        Page 10
V04-000                   Semantic Action  Dispatch table to seman  5-SEP-1984 01:48:48  [MACRO.SRC]LRPTAB.MAR;1          (6)

```
00000000'00000000'00000000'  0E68  327  .DATARG    .DATARG    .ERRDAR
00000000'00000000'00000000'  0E74  328  .ERRDAR    .CHARHD    .CHARHD
00000000'00000000'00000000'  0E80  329  .ASCII     .ASCIZ     .ASCID
00000000'00000000'00000000'  0E8C  330  .ASCIC     .CHRARG    .CHRARG
00000000'00000000'00000000'  0E98  331  .CHRNUL    .CHRNUL    .ERRCHA
00000000'00000000'00000000'  0EA4  332  .ERRCHA    .ERRCHA    .0
00000000'00000000'00000000'  0EB0  333  .ERRADR    .ADDRES    .STOADR
00000000'00000000'00000000'  0EBC  334  .STOADR    .ERRADR    .ERRADR
00000000'00000000'00000000'  0EC8  335  .0         .EXPBIN    .OPCOM
00000000'00000000'00000000'  0ED4  336  .OPSAME    .OPNEG     .OPPLUS
00000000'00000000'00000000'  0EE0  337  .OPMINU    .OPMUL     .OPDIV
00000000'00000000'00000000'  0EEC  338  .OPAND     .OPOR      .OPXOR
00000000'00000000'00000000'  0EF8  339  .OPASH     .0         .PRMUN
00000000'00000000'00000000'  0F04  340  .ERREXP    .PRMSYM    .PRMPC
00000000'00000000'00000000'  0F10  341  .PRMINT    .PRMRDX    .0
00000000'00000000'00000000'  0F1C  342  .PRMBRK    .ERREXP    .ERREXP
00000000'00000000'00000000'  0F28  343  .RDXHEX    .RDXDEC    .RDXBIN
00000000'00000000'00000000'  0F34  344  .RDXOCT    .NUMASC    .NUMFLT
00000000'00000000'00000000'  0F40  345  .0         .MASK      .MASKNL
00000000'00000000'00000000'  0F4C  346  .MASKX     .RGLST1    .REGLST
00000000'00000000'00000000'  0F58  347  .0         .0         .REF1
00000000'00000000'00000000'  0F64  348  .LITERL    .REF2      .REF3
00000000'0000C000'00000000'  0F70  349  .ERRREF    .RDEFER    .AUTOI
00000000'00000000'00000000'  0F7C  350  .AUTOII    .AUTOI3    .AUTODC
00000000'00000000'00000000'  0F88  351  .DISP      .DISPI     .GENLDS
00000000'00000000'00000000'  0F94  352  .ERRBRF    .ERRBRF    .ERRBRF
00000000'00000000'00000000'  0FA0  353  .AINC1     .AINC2     .AINC3
00000000'00000000'00000000'  0FAC  354  .DISPL1    .DISPL2    .DISPL3
00000000'00000000'00000000'  0FB8  355  .DISPL4    .DISPL5    .DISPL6
00000000'00000000'00000000'  0FC4  356  .DISPL7    .DISPL8    .INDEX
         00000000'00000000'  0FD0  357  .0
                             0FD8  358  .0    .end
```

MAC$LRPTAB          VAX-11 Macro-32 Assembler Grammar Tables 16-SEP-1984 01:53:54   VAX/VMS Macro V04-00     Page 11
Symbol table                                           5-SEP-1984 01:48:48   [MACRO.SRC]LRPTAB.MAR;1     (6)

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| Symbol | Value | | | Symbol | Value | | | Symbol | Value | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADDRES | ******** | X | 01 | ENDC | ******** | X | 01 | MCALL | ******** | X | 01 |
| AINC1 | ******** | X | 01 | ENDPRG | ******** | X | 01 | MEXIT | ******** | X | 01 |
| AINC2 | ******** | X | 01 | ENTRY1 | ******** | X | 01 | MINST1 | ******** | X | 01 |
| AINC3 | ******** | X | 01 | ENTRY2 | ******** | X | 01 | MTXT1 | = 00000000 | | |
| ALIGN | ******** | X | 01 | ERRADR | ******** | X | 01 | MTXT2 | = 00000000 | | |
| ALIGN1 | ******** | X | 01 | ERRASN | ******** | X | 01 | MTXT3 | ******** | X | 01 |
| ALIGN2 | ******** | X | 01 | ERRBLK | ******** | X | 01 | MTXT4 | ******** | X | 01 |
| ASCIC | ******** | X | 01 | ERRBRF | ******** | X | 01 | NARG | ******** | X | 01 |
| ASCID | ******** | X | 01 | ERRCHA | ******** | X | 01 | NCHR | ******** | X | 01 |
| ASCII | ******** | X | 01 | ERRDAR | ******** | X | 01 | NLIST | ******** | X | 01 |
| ASCIZ | ******** | X | 01 | ERRDOL | ******** | X | 01 | NTHD1 | ******** | X | 01 |
| ASSGN1 | ******** | X | 01 | ERRENT | ******** | X | 01 | NTHD2 | ******** | X | 01 |
| ASSHD1 | ******** | X | 01 | ERREPT | ******** | X | 01 | NTYPE1 | ******** | X | 01 |
| ASSHD2 | ******** | X | 01 | ERREXP | ******** | X | 01 | NTYPE2 | ******** | X | 01 |
| ASSHD3 | ******** | X | 01 | ERRIIF | ******** | X | 01 | NULL | = 00000000 | | |
| AUTODC | ******** | X | 01 | ERRMRS | ******** | X | 01 | NUMASC | ******** | X | 01 |
| AUTOI | ******** | X | 01 | ERRMST | ******** | X | 01 | NUMFLT | ******** | X | 01 |
| AUTOI3 | ******** | X | 01 | ERROPD | ******** | X | 01 | OCTA | ******** | X | 01 |
| AUTOII | ******** | X | 01 | ERROR | ******** | X | 01 | OCTSTR | ******** | X | 01 |
| BDEND1 | ******** | X | 01 | ERROR1 | ******** | X | 01 | ODD | ******** | X | 01 |
| BDEND2 | ******** | X | 01 | ERROR2 | ******** | X | 01 | OPAND | ******** | X | 01 |
| BLKBYT | ******** | X | 01 | ERRREF | ******** | X | 01 | OPASH | ******** | X | 01 |
| BLKLNG | ******** | X | 01 | EVEN | ******** | X | 01 | OPCOM | ******** | X | 01 |
| BLKOCT | ******** | X | 01 | EXPBIN | ******** | X | 01 | OPDIV | ******** | X | 01 |
| BLKQUD | ******** | X | 01 | EXTRN | ******** | X | 01 | OPMINU | ******** | X | 01 |
| BLKWRD | ******** | X | 01 | FLOAT | ******** | X | 01 | OPMUL | ******** | X | 01 |
| BSTAT1 | ******** | X | 01 | GENLDS | ******** | X | 01 | OPNEG | ******** | X | 01 |
| BSTAT2 | ******** | X | 01 | GFLOAT | ******** | X | 01 | OPOR | ******** | X | 01 |
| BYTE | ******** | X | 01 | GLOBAL | ******** | X | 01 | OPPLUS | ******** | X | 01 |
| CHARHD | ******** | X | 01 | GOAL | ******** | X | 01 | OPRAND | ******** | X | 01 |
| CHRARG | ******** | X | 01 | HFLOAT | ******** | X | 01 | OPSAME | ******** | X | 01 |
| CHRNUL | ******** | X | 01 | IDENT | ******** | X | 01 | OPXOR | ******** | X | 01 |
| CRESTO | ******** | X | 01 | IDLIST | ******** | X | 01 | PACKED | ******** | X | 01 |
| CRODSB | ******** | X | 01 | IF | ******** | X | 01 | PAGE | ******** | X | 01 |
| CROENB | ******** | X | 01 | IFF | ******** | X | 01 | PAT$AB_LHS | 00000B0C | RG | 01 |
| CSAVE | ******** | X | 01 | IFHD1 | ******** | X | 01 | PAT$AB_POP | 00000A14 | RG | 01 |
| DALST1 | ******** | X | 01 | IFSPL | ******** | X | 01 | PAT$AB_SYMLST | 00000000 | RG | 01 |
| DALST2 | ******** | X | 01 | IFSYNT | ******** | X | 01 | PAT$AL_SEM | 00000C04 | RG | 01 |
| DATARG | ******** | X | 01 | IFT | ******** | X | 01 | PAT$AW_ACTION | 0000035C | RG | 01 |
| DATNUL | ******** | X | 01 | IFTF | ******** | X | 01 | PRINT | ******** | X | 01 |
| DEBUG | ******** | X | 01 | IIF | ******** | X | 01 | PRMBRK | ******** | X | 01 |
| DELETE | ******** | X | 01 | IIF1 | ******** | X | 01 | PRMINT | ******** | X | 01 |
| DFNOPC | ******** | X | 01 | IIF2 | ******** | X | 01 | PRMPC | ******** | X | 01 |
| DIRREF | ******** | X | 01 | INDEX | ******** | X | 01 | PRMRDX | ******** | X | 01 |
| DISP | ******** | X | 01 | IRP | ******** | X | 01 | PRMSYM | ******** | X | 01 |
| DISPI | ******** | X | 01 | IRPC | ******** | X | 01 | PRMUN | ******** | X | 01 |
| DISPL1 | ******** | X | 01 | LBL1 | ******** | X | 01 | PSECT | ******** | X | 01 |
| DISPL2 | ******** | X | 01 | LBL2 | ******** | X | 01 | QUAD | ******** | X | 01 |
| DISPL3 | ******** | X | 01 | LIBRY | ******** | X | 01 | QUDSTR | ******** | X | 01 |
| DISPL4 | ******** | X | 01 | LINK | ******** | X | 01 | RDEFER | ******** | X | 01 |
| DISPL5 | ******** | X | 01 | LIST | ******** | X | 01 | RDXBIN | ******** | X | C1 |
| DISPL6 | ******** | X | 01 | LITERL | ******** | X | 01 | RDXDEC | ******** | X | 01 |
| DISPL7 | ******** | X | 01 | LONG | ******** | X | 01 | RDXHEX | ******** | X | 01 |
| DISPL8 | ******** | X | 01 | MACRO | ******** | X | 01 | RDXOCT | ******** | X | 01 |
| DOUBLE | ******** | X | 01 | MASK | ******** | X | 01 | REF1 | ******** | X | 01 |
| DSABL | ******** | X | 01 | MASKNL | ******** | X | 01 | REF2 | ******** | X | 01 |
| ENABL | ******** | X | 01 | MASKX | ******** | X | 01 | REF3 | ******** | X | 01 |

```
REGLST            ********   X   01
REPT              ********   X   01
REPTHD            ********   X   01
RFHD1             ********   X   01
RFHD16            ********   X   01
RFHD2             ********   X   01
RFHD4             ********   X   01
RFHD8             ********   X   01
RGLST1            ********   X   01
SBTTL             ********   X   01
SETDFL            ********   X   01
SGNBYT            ********   X   01
SGNWRD            ********   X   01
STAT1             ********   X   01
STAT4             ********   X   01
STOADR            ********   X   01
TITLE             ********   X   01
VECTR0            ********   X   01
VECTR1            ********   X   01
VECTR2            ********   X   01
WARN              ********   X   01
WEAK              ********   X   01
WORD              ********   X   01
XFER              ********   X   01
```

```
                           +-----------------+
                           ! Psect synopsis !
                           +-----------------+
```

| PSECT name | Allocation | PSECT No. | Attributes | | | | | | | | | |
|------------|-----------|-----------|-----------|---|---|---|---|---|---|---|---|---|
| .  ABS  . | 00000000  (     0.) | 00 (   0.) | NOPIC | USR | CON | ABS | LCL | NOSHR | NOEXE | NORD | NOWRT NOVEC BYTE |
| MAC$PARSE_TABLE | 00000FD8  (  4056.) | 01 (   1.) | NOPIC | USR | CON | REL | GBL | NOSHR | NOEXE | RD | NOWRT NOVEC LONG |

```
                        +--------------------------+
                        ! Performance indicators !
                        +--------------------------+
```

| Phase | Page faults | CPU Time | Elapsed Time |
|-------|-------------|----------|--------------|
| Initialization | 41 | 00:00:00.03 | 00:00:03.02 |
| Command processing | 151 | 00:00:00.37 | 00:00:03.53 |
| Pass 1 | 115 | 00:00:02.11 | 00:00:08.32 |
| Symbol table sort | 0 | 00:00:00.14 | 00:00:00.32 |
| Pass 2 | 120 | 00:00:00.77 | 00:00:03.50 |
| Symbol table output | 17 | 00:00:00.05 | 00:00:00.45 |
| Psect synopsis output | 1 | 00:00:00.01 | 00:00:00.02 |
| Cross-reference output | 0 | 00:00:00.00 | 00:00:00.00 |
| Assembler run totals | 447 | 00:00:03.50 | 00:00:19.17 |

The working set limit was 1050 pages.
17775 bytes (35 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 195 non-local and 0 local symbols.
358 source lines were read in Pass 1, producing 25 object records in Pass 2.
0 pages of virtual memory were used to define 0 macros.

```
                                      +------------------------------+
                                      ! Macro library statistics !
                                      +------------------------------+

Macro library name                    Macros defined
------------------                    --------------
_$255$DUA28:[MACRO.OBJ]MACRO.MLB;1          0
_$255$DUA28:[SYSLIB]STARLET.MLB;2           0
TOTALS (all libraries)                      0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS$:LRPTAB/OBJ=OBJ$:LRPTAB MSRC$:LRPTAB/UPDATE=(ENH$:LRPTAB)+LIB$:MACRO/LIB
```

MACLIB
LIS

MAIN
LIS

LINK
LIS

INTOUT
LIS

IODAT
LIS

MACMSG
LIS

P2ACT1
LIS

MACLIN
LIS

LRPTAB
LIS

OHDOUT
LIS

MACDEF
LIS

MACSUB
LIS